



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Nicolai Kosche et al.

Title: METHOD AND APPARATUS FOR PROFILING DATA ADDRESSES

Application No.: 10/840,164 Filed: May 6, 2004

Examiner: Tuan Quang Dam Group Art Unit: 2192

Atty. Docket No.: 004-9159 Confirmation No.: 7512

March 14, 2006

Mail Stop Amendment COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT 37 C.F.R. § 1.97(b)

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the undersigned brings to the Examiner's attention in the above-identified application the patents, publications, applications or other information identified in the attached:

$\boxtimes$	Form(s) PTO/SB/08A (3 page(s), with copy of 1 reference(s)).
$\boxtimes$	Form(s) PTO/SB/08B (2 page(s), with copy of 26 reference(s)).
	Listing of Pending Applications (N/A page(s), with copy of no application(s))
	Other: N/A

Citation of such information shall not be construed as (i) an admission that the information necessarily is, or corresponds to, prior art with respect to the instant invention, (ii) a representation that a search has been made, other than as described herein, or (iii) an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

For each item of information listed that is not in the English language, the undersigned has provided a concise explanation of the relevance through (i) an English language abstract, (ii) an English language equivalent application, or (iii) if cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action that indicates the degree of relevance found by the foreign office.

## **CERTAIN COPIES NOT INCLUDED**

Pursuant to operative regulations, certain copies need not be provided and corresponding information is identified in this Information Disclosure Statement by citation only. In particular,

$\boxtimes$	In accordance with 37 C.F.R. § 1.98(a)(2)(ii), copies of cited U.S. Patents and U.S. Patent Application Publications are not included.
	Certain information was submitted to, or cited by, the Office in Application No(s). N/A, filed N/A, to which the above-identified application claims priority under 35 U.S.C. § 120. In accordance with 37 C.F.R. § 1.98(d), copies of that information are not included.
	Pursuant to 1287 OG 163 (October 19, 2004), for those cited pending U.S. patent applications filed (or which entered the national stage under 35 U.S.C. § 371) on or after June 30, 2003 or which are otherwise stored in the USPTO's Image File Wrapper system, copies are not included.
	FEE AUTHORIZATION
	This Information Disclosure Statement is filed within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) or within three months of entry of the national stage as set forth in § 1.491 in an international application. Therefore, no fee is required.
$\boxtimes$	The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.
	If however, this Information Disclosure Statement is filed after the period specified in § 1.97(b), the undersigned hereby authorizes the Commissioner to charge the fee set forth in § 1.17(p) to Deposit Account No. 50-0631.

CERTIFICATE	OF MAILING	OR TRANSMISSION

I hereby certify that, on the date shown below, this correspondence is being

- deposited with the US Postal Service with sufficient postage as first class mail and addressed as shown above.
- ☐ facsimile transmitted to the US Patent and Trademark Office.

Steven R. Gillman Date

EXPRESS MAIL LABEL:	

Respectfully submitted,

Steven R. Gilliam, Reg. No. 51,734

Attorney for Applicant(s)

(512) 338-6320 (direct)

(512) 338-6300 (main)

(512) 338-6301 (fax)

PTO/SB/08A (Substitute for form 1449/PTO)	Attorney Docket No.:	004-9159
	Application No.:	10/840,164
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Inventor:	Nicolai Kosche
THE MAGE	Filing Date:	May 6, 2004
17 2006 🗒	Group Art Unit:	2192
MAR &	Examiner Name:	Dam, Tuan Quang
She of 5	Date Submitted:	March 14, 2006

			U.S. PATENT DO	CUMENTS			
Examiner Initials*	Cite No.1	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, W Relevant Passages or Rele Figures Appear	or Relevant	
	AA	5,526,499	06-11-1996	Bernstein et al.			
	AB	5,948,095	09-07-1999	Arora et al.			
	AC	5,964,867	10-12-1999	Anderson et al.			
	AE	6,092,180	07-18-2000	Anderson et al.			
	AF	6,098,166	08-01-2000	Liebholz et al.		· · · · ·	
	AG	6,289,506	09-11-2001	Kwong et al.			
<del> </del>	AH	6,308,261	10-23-2001	Morris et al.			
· · · · · · · · · · · · · · · · · · ·	Al	6,314,431	11-06-2001	Gornish			
	AJ	6,567,975	05-20-2003	Damron			
	AK	6,574,713	06-03-2003	Kosche et al.			
	AL	6,625,660	09-23-2003	Guthrie et al.			
	AM	6,651,245	11-18-2003	Damron et al.			
		<u> </u>	L FOREIGN PATENT	DOCUMENTS	<u> </u>		
			1				
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>	
	AN	WO 01/44927 A2	06-21-2001	Kosche et al.			
						_	
Examiner Sig	nature		1	Date Considered			

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

<sup>&</sup>lt;sup>2</sup>See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04.

<sup>&</sup>lt;sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3)

For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

<sup>&</sup>lt;sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (Substitute for form 1449/PTO)	Attorney Docket No.	: 004-9159
	Application No.:	10/840,164
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Invento	r: Nicolai Kosche
(Continuation Sheet)	Filing Date:	May 6, 2004
	Group Art Unit:	2192
	Examiner Name:	Dam, Tuan Quang
Sheet 2 of 5	Date Submitted:	March 14, 2006

			U.S. PATENT DO	CUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, W Relevant Passages or Rele Figures Appear	here
	AA	6,671,878	12-30-2003	Bliss		
	AB	6,675,374	01-06-2004	Pieper et al.		
	AC	6,675,380	01-06-2004	McKinsey et al.		
	AD	6,678,796	01-13-2004	Kosche et al.		
	AE	6,681,317	01-20-2004	Mathews		
	AF	6,697,932	02-24-2004	Yoaz et al.		
	AG	6,748,589	06-08-2004	Johnson et al.		
	AH	6,785,796	08-31-2004	Damron et al.		
	AI	6,880,073	04-12-2005	Arimilli et al.		
	AJ	6,918,111	07-12-2005	Damron et al.		
			FOREIGN PATENT	DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
Examiner Sig	nature			Date Considered		L

PTO/SB/08A (Substitute for form 1449/PTO)	Attorney Docket No.:	004-9159
	Application No.:	10/840,164
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Inventor	: Nicolai Kosche
(Continuation Sheet)	Filing Date:	May 6, 2004
	Group Art Unit:	2192
	Examiner Name:	Dam, Tuan Quang
Sheet 3 of 5	Date Submitted:	March 14, 2006

			U.S. PATENT DO	CUMENTS		
Examiner Initials*	Cite No.1	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, W Relevant Passages or Rele Figures Appear	here vant
	AA	2002/0010913	01-24-2002	Ronstrom		
	AB	2002/0056078	05-09-2002	Inagaki et al.		
	AC	2003/0074653	04-17-2003	Ju et al.		
	AD	2003/0101336	05-29-2003	Kosche et al.		
	AE	2003/0105942	06-05-2003	Damron et al.		
			FOREIGN PATENT	DOCUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
Examiner Sig	nature			Date Considered		•

PTO/SB/08A (Substitute for form 1449/PTO)	Attorney Docket No.:	004-9159
	Application No.:	10/840,164
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Inventor	: Nicolai Kosche
(Continuation Sheet)	Filing Date:	May 6, 2004
	Group Art Unit:	2192
	Examiner Name:	Dam, Tuan Quang
Sheet 4 of 5	Date Submitted:	March 14, 2006

	<del>_</del>	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	AA	ALPERN, B. et al., "The Jalapeno Virtual Machine," IBM Systems Journal, Vol. 39, No. 1, 2000, pages 211-238.	
	AB	ANDERSON, Jennifer et al., "Continuous Profiling (It's 10:43; Do You Know Where Your Cycles Are?)," abstract for presentation at HOT Chips 9, Stanford, CA, August 1997, 2 pages, retrieved from the Internet at URL http://h30097.www3.hp.com/dcpi/publications.htm.	
	AC	ANDERSON, Jennifer et al., "Instruction-Level Profiling on In-Order and Out-of-Order Processors," DEC presentation by Jeff Dean at Duke University, December 3, 1997, 42 pages, retrieved from the Internet at URL http://h30097.www3.hp.com/dcpi/publications.htm.	
	AD	ANDERSON, Jennifer et al., "Continuous Profiling: An Electron Microscope for Your Computer," presentation by Mark Vandevoorde to Silicon Valley summer interns, Palo Alto, CA, August 13, 1999, 18 pages.	
	AE	ARMSTRONG, Eric, "HotSpot: A new breed of virtual machine," <i>Java World</i> , March 1998, 11 pages, retrieved from the Internet at URL http://www.javaworld.com.	
	AF	BERRENDORF, Rudolf and ZIEGLER, Heinz, "PCL - The Performance Counter Library: A Common Interface to Access Hardware Performance Counters on Microprocessors (Version 1.2)," Technical Report FZJ-ZAM-IB-9816, Julich, Germany, October 1998, pages 1-50.	
	AG	BERC, Lance and VANDEVOORDE, Mark, "Hardware Support for Out-of-Order Instruction Profiling on Alpha 21264a," <i>HotChips 11</i> , (Power Point) Stanford, CA, USA, August 17, 1999, 21 pages.	
	АН	BROWNE, Shirley et al., "A Scalable Cross-Platform Infrastructure for Application Performance Tuning Using Hardware Counters," <i>Proceedings of SC2000</i> , Dallas, TX, November 2000, 10 pages.	
	ΑI	BURROWS, Mike et al., "Efficient and Flexible Value Sampling," Architectural Support for Programming Languages and Operating Systems (ASPLOS-IX), Nov. 13 2000, pages 1-19.	• ,_
	AJ	CHILIMBI, Trishul M. et al., "Cache-Conscious Structure Layout," Proceedings of the ACM SIGPLAN '99 Conf. on Programming Language Design and Implementation, May 1999, 12 pages.	
	AK	CHILIMBI, Trishul J., et al., "Cache-Conscious Structure Definition," <i>Proceedings of the ACM SIGPLAN</i> '99 Conf. on Programming Language Design and Implementation, May 1999, 12 pages.	
	AL	DEROSE, Luiz et al., "SIGMA: A Simulator Infrastructure to Guide Memory Analysis," Conf. on High Performance Networking and Computing Proceedings of the 2002 ACM/IEEE Conf. on Supercomputing, Baltimore, MD, 2002, 13 pages.	<del></del>
	AM	ITZKOWITZ, Marty et al., "Memory Profiling Using Hardware Counters," in Conf. on High Performance Networking and Computing Proceedings of the 2003 ACM/IEEE Conf. on Supercomputing, Phoenix, AZ, November 15-21, 2003, pages 1-12.	
	AN	LEBECK, Alvin R., "Cache Conscious Programming in Undergraduate Computer Science," ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE '99), Proceedings of the 30th SIGSCE Tech Symposium on Comp. Sci. Edu., New Orleans, LA, USA, March 24-28, 1999, 5 pages.	
xaminer Sig	nature	Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional).

<sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (Substitute for form 1449/PTO)	Attorney Docket No.:	004-9159
	Application No.:	10/840,164
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Inventor	: Nicolai Kosche
(Continuation Sheet)	Filing Date:	May 6, 2004
	Group Art Unit:	2192
	Examiner Name:	Dam, Tuan Quang
Sheet 5 of 5	Date Submitted:	March 14, 2006

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.1	Include name of author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
	AA	LIPASTI, Mikko H. et al., "SPAID: Software Prefetching in Pointer- and Call-Intensive Environments," <i>Micro 28 Proceedings of the 28th Annual International Symposium on Microarchitecture,</i> Nov. 29-Dec. 1, 1995, Ann Arbor, MI, 6 pages.		
	AB	LUK, Chi-Keung and MOWRY, Todd, "Compiler-Based Prefetching for Recursive Data Structures," APLOS-VII, Proceedings of the Seventh International Conf. on Architectural Support for Programming Languages and Operating Systems, Cambridge, MA, Oct. 1-5, 1996, 12 pages.		
	AC	MARTONOSI, Margaret et al., "MemSpy: Analyzing Memory System Bottlenecks in Programs," <i>Proceedings of the 1992 ACM SIGMETRICS Joint Int'l. Conf. on Measurement and Modeling of Computer Systems</i> , Newport, RI, USA, June 1-5, 1992, pages 1-12.		
	AD	MOWRY, Todd C. et al., "Design and Evaluation of a Compiler Algorithm for Prefetching," ASPLOS-V, Proceedings of the Fifth International Conf. on Architectural Support for Programming Languages and Operating Systems, Boston, MA, USA, Oct. 12-15, 1992, pages 62-73.	· · · · · ·	
	AE	RUBIN, Shai et al., "An Efficient Profile-Analysis Framework for Data-Layout Optimizations," <i>Proceedings of the 29th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages</i> , Portland, OR USA, Jan. 16-18, 2002, 14 pages.		
	AF	SPRUNT, Brinkley, "The Performance Monitoring Features of the Pentium 4 Processor," <i>IEEE Micro</i> , Vol. 22, No. 4, July 2002, pages 32-42.		
	AG	SRIDHARAN, K., "VTune: Intel's Visual Tuning Environment," <i>Proceedings of USENIX-NT Windows NT Workshop</i> , August 11, 1997, Seattle, CA, USA, retrieved from the Internet at URL http://www.usenix.org/publications/library/proceedings/usenix-nt97/presentations/sridhar.html, 24 pages.		
	АН	"Program Performance Analysis Tools," Sun Microsystems, Inc. Publication 817-0922-10, May 2003, retrieved from the Internet at URL http://docs.sun.com/source/817-0922/, 244 pages.		
	AI	VENNERS, Bill, "The HotSpot Virtual Machine, How HotSpot Can Improve Java Program Performance and Designs," <i>Artima Developer</i> , May 1998, 7 pages, retrieved from the Internet at URL http://www.artima.com.		
	AJ	WALKER, Kip et al., "Using Interpretation for Profiling the Alpha 21264a," (Power Point) presented at Carnegie Mellon University, October 1999, 29 pages.		
	AK	WEIHL, William E., "Digital Continuous Profiling Infrastructure," June 2004, 3 pages, retrieved from the Internet at URL http://www.research.digital.com/SRC/dcpi.html.		
	AL	"The Java HotSpot Performance Engine Architecture," <i>Digital Forefront Magazine</i> , Winter 1997, pages 27-28, retrieved from the Internet at URL http://java.sun.com/products/whitepaper.html.		
Examiner Sig	nature	Date Considered		